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ABSTRACT OF THE DISCLOSURE

Bidirectional isolating devices including non-reciprocal rotators (i.e. Faraday rotators) and wavelength selective reciprocal polarization rotators are disclosed. Each wavelength selective rotator behaves like a half-wave retarder in a first frequency range and behaves like a full-wave retarder in a second frequency range, according to a substantially periodic transfer function. The rotation has a predetermined number of birefringent elements (e.g. waveplates), the thickness and the orientation of which are chosen so as to obtain a transition between the half-wave retarder behavior and the full-wave retarder behavior in a frequency range lower than or equal to 40% of the period of the transfer function. In order to satisfy such a requirement, a relatively high number of birefringent elements is required, i.e. at least the five birefringent elements. Advantageously, the isolating device may comply with any allocation scheme for the opposite propagating signals.